Contents of Volume 161, No. 1

INSTRUCTIONS TO AUTHORS

PAGE

Policy of the Journal and Instructions to Authors. Amendments (1977) 1

FULL PAPERS

PAGE

Proteins

A functioning complex between tryptic fragments of cytochrome *c*. A route to the production of semisynthetic analogues.
By D. E. Harris & R. E. Offord 21

Preparation and characterization of armadillo submandibular glycoproteins.
By A. M. Wu & W. Pigman 37

Folding domains and intramolecular ionic interactions of lysine residues in glyceraldehyde 3-phosphate dehydrogenase.
By J. M. Lambert & R. N. Perham 49

Intramolecular ionic interactions of lysine residues and a possible folding domain in fructose diphosphate aldolase.
By J. M. Lambert, R. N. Perham & J. R. Coggins 63

Ionic-strength-dependent changes in the structure of the major protein of the human erythrocyte membrane.
By R. E. Jenkins & M. J. A. Tanner 131

The structure of the major protein of the human erythrocyte membrane. Characterization of the intact protein and major fragments.
By R. E. Jenkins & M. J. A. Tanner 139

Lipids

Interactions of tocopherols and ubiquinones with monolayers of phospholipids.
By B Maggio, A. T. Diplock & J. A. Lucy 111

Carbohydrates

Dolichyl monophosphate and its sugar derivatives in plants.
By C. T. Brett & L. F. Leloir 93

PAGE

Amino components of the lipopolysaccharide from *Pseudomonas aeruginosa* N.C.T.C. 8505. Presence of 2,4-diamino-2,4,6-trideoxy-D-glucose.
By S. G. Wilkinson 103

Enzymology

A pulse-radiolysis study of the catalytic mechanism of the iron-containing superoxide dismutase from *Photobacterium leiognathi*.
By F. Lavelle, M. E. McAdam, E. M. Fielden, P. B. Roberts, K. Puget & A. M. Michelson 3

Action of human lysosomal elastase on the oxidized B chain of insulin.
By A. M. J. Blow 13

Action of human cathepsin G on the oxidized B chain of insulin.
By A. M. J. Blow & A. J. Barrett 17

The binding of copper ions to copper-free bovine superoxide dismutase. Copper distribution in protein samples recombined with less than stoicheiometric copper ion/protein ratios.
By A. Rigo, P. Viglino, L. Calabrese, D. Cocco & G. Rotilio 27

The binding of copper ions to copper-free bovine superoxide dismutase. Properties of the protein recombined with increasing amounts of copper ions.
By A. Rigo, M. Terenzi, P. Viglino, L. Calabrese, D. Cocco & G. Rotilio 31

A study of the ionic properties of the essential histidine residue of yeast alcohol dehydrogenase in complexes of the enzyme with its coenzymes and substrates.
By C. J. Dickenson & F. M. Dickinson 73

The effect of temperature on the individual stages of the hydrolysis of non-specific *p*-nitrophenol esters by α-chymotrypsin.
By P. A. Adams & E. R. Swart 83

PAGE

The actions of progesterone and diethylstilboestrol on the dehydrogenase and esterase activities of a purified aldehyde dehydrogenase from rabbit liver.
By R. J. S. Duncan 123

Glycosidases from the culture medium of *Physarum polycephalum*.
By D. C. Kilpatrick & J. L. Stirling 149

PAGE

Phospholipase C from *Bacillus cereus*. Evidence for essential lysine residues.
By B. Aurebekk & C. Little 159

Purification and immunochemical characterization of monoamine oxidase from rat and human liver.
By R. G. Dennick & R. J. Mayer 167

RAPID PAPERS

PAGE

Proteins

An addition at the *C*-terminus of water-buffalo immunoglobulin lambda chains.
By J. Svasti 185

Partial amino acid sequence of rat preprolactin.
By R. A. Maurer, J. Gorski & D. J. McKean 189

PAGE

Enzymology

Identity of rat kidney histidine–pyruvate aminotransferase with glutamine–oxo acid aminotransferase.
By T. Noguchi, E. Okuno & R. Kido 177

The catalytic activity of monomeric yeast hexokinase A.
By B. P. Yip & F. B. Rudolph 181

Contents of Volume 161, No. 2

FULL PAPERS

PAGE

Proteins

The use of gadolinium as a probe in the Fc region of a homogeneous anti-(type-III pneumococcal polysaccharide) antibody.
By K. J. Willan, K. H. Wallace, J.-C. Jaton & R. A. Dwek 205

Inhibition of the reconstitution of the haemolytic activity of the first component of human complement by a pepsin-derived fragment of subcomponent C1q.
By K. B. M. Reid, R. B. Sim & A. P. Faiers 239

Amino acid sequence of the *N*-terminal forty-two amino acid residues of the C chain of subcomponent C1q of the first component of human complement.
By K. B. M. Reid 247

Biochemical and physicochemical characterization of pepsin-solubilized type-II collagen from bovine articular cartilage.
By D. Herbage, J. Bouillet & J.-C. Bernengo 303

The phosphorylation sites of troponin T from white skeletal muscle and the effects of interaction with troponin C on their phosphorylation by phosphorylase kinase.
By A. J. G. Moir, H. A. Cole & S. V. Perry 371

PAGE

The proteins in the Z line of insect flight muscle.
By B. Bullard & G. M. Sainsbury 399

The disulphide-bonded nature of procollagen and the role of the extension peptides in the assembly of the molecule.
By R. Harwood, A. H. Merry, D. E. Woolley, M. E. Grant & D. S. Jackson 405

Lipids

Labelling of egg phosphatidylcholine vesicles and myelin membrane with a photoreactive lipophilic reagent.
By K. M. Abu-Salah & J. B. C. Findlay 223

Properties of rat liver microsomal stearoyl-coenzyme A desaturase.
By R. Jeffcoat, P. R. Brawn, R. Safford & A. T. James 431

Carbohydrates

The isolation of minimally degraded hyaluronate from rat skin.
By J. M. Mathieson & R. H. Pearce 419

GENERAL BOOKBINDING CO.
313AA 2 013 1 C 2386
QUALITY CONTROL MARK

PAGE

Small Molecules

Bile salts of the lungfishes *Lepidosiren, Neoceratodus* and *Protopterus* and those of the coelacanth *Latimeria chalumnae* Smith.
By B. Amos, I. G. Anderson, G. A. D. Haslewood & L. Tökes 201

Molar absorption coefficients of porphyrin esters in chloroform determined by copper titration.
By T. K. With & J. S. Pedersen 425

Enzymology

Purification and properties of rabbit spermatozoal acrosomal neuraminidase.
By P. N. Srivastava & H. Abou-Issa 193

Guanosine cyclic monophosphate-dependent protein kinase from foetal calf heart. Purification, general properties and catalytic subunit.
By M. Shoji, J. G. Patrick, C. W. Davis & J. F. Kuo 213

Mechanism of anticholinesterase activities of cardiotoxin, protamine and polylysine.
By S.-Y. S. Lin, C. Liao & C. Y. Lee 229

Biospecific-elution chromatography with 'imphilytes' as stationary phases.
By R. J. Yon 233

Purification of glycolytic enzymes by using affinity-elution chromatography.
By R. K. Scopes 253

Multiple enzyme purifications from muscle extracts by using affinity-elution chromatographic procedures.
By R. K. Scopes 265

Properties of the multiple forms of the soluble 17α-hydroxy steroid dehydrogenase of rabbit liver.
By S. Hasnain & D. G. Williamson 279

PAGE

Improved non-parametric statistical methods for the estimation of Michaelis–Menten kinetic parameters by the direct linear plot.
By W. R. Porter & W. F. Trager 293

Partial purification and properties of *Halobacterium cutirubrum* L-alanine dehydrogenase.
By E. K. Kim & P. S. Fitt 313

Optical properties and denaturation by guanidinium chloride and urea of the adenosine triphosphatase of *Micrococcus lysodeikticus*. A comparison of four molecular forms of the enzyme.
By M. Nieto & J. A. Ayala 321

Purification and properties of the methane mono-oxygenase enzyme system from *Methylosinus trichosporium* OB3b.
By G. M. Tonge, D. E. F. Harrison & I. J. Higgins 333

L-Serine dehydratase from *Arthrobacter globiformis*.
By F. Gannon, E. S. Bridgeland & K. M. Jones 345

Solubilization, partial purification and properties of *N*-methylglutamate dehydrogenase from *Pseudomonas aminovorans*.
By C. W. Bamforth & P. J. Large 357

Interaction of difluoro-oxaloacetate with aspartate transaminase.
By P. A. Briley, R. Eisenthal, R. Harrison & G. D. Smith 383

Isolation and characterization of sheep pepsin.
By P. F. Fox, J. R. Whitaker & P. A. O'Leary 389

Intermolecular Organization

Structural investigation of loose connective tissue by using a series of dextran fractions as non-interacting macromolecular probes.
By F. A. Meyer, M. Koblentz & A. Silberberg 285

RAPID PAPERS

PAGE

Enzymology

Preparation and properties of nylon-tube-supported nicotinamide–adenine dinucleotide kinase.
By P. V. Sundaram & D. K. Apps 441

PAGE

Mechanism of 'L'-type pyruvate kinase from rabbit liver. Evidence against phosphoenzyme formation.
By L. G. Dann & H. G. Britton 445

Contents of Volume 161, No. 3

FULL PAPERS

PAGE

Proteins

Affinity-chromatographic isolation and some properties of troponin C from different muscle types.
By J. F. Head, R. A. Weeks & S. V. Perry 465

The isolation and partial characterization of the major glycoprotein (LGP-I) from the articular lubricating fraction from bovine synovial fluid.
By D. A. Swann, S. Sotman, M. Dixon & C. Brooks 473

Studies *in vitro* of the effects of adenosine 3′:5′-cyclic monophosphate on the phosphorylation of nuclear proteins in isolated rat heart nuclei.
By R. A. Akhtar & S. Itzhaki 487

Human collagen 'fingerprints' produced by clostridiopeptidase A digestion and high-pressure liquid chromatography.
By M. van der Rest, W. G. Cole & F. H. Glorieux 527

Adenosine diphosphate ribosylated histones.
By M. G. Ord & L. A. Stocken 583

Large fragments of human serum albumin.
By M. J. Geisow & G. H. Beaven 619

Self-association of α-chymotrypsin at low ionic strength in the vicinity of its pH optimum.
By R. Tellam & D. J. Winzor 687

Carbohydrates

Molecular conformation of sodium heparan sulphate in the condensed phase.
By H. F. Elloway & E. D. T. Atkins 495

Small Molecules

A new amino acid, 3-(2,5-*SS*-dicysteinyl-3,4-dihydroxyphenyl)alanine, from the tapetum lucidum of the gar (Lepisosteidae) and its enzymic synthesis.
By S. Ito & J. A. C. Nicol 499

A simple enzymic method for the synthesis of adenosine 5′-[α-^{32}P]triphosphate on a preparative scale.
By B. R. Martin & H. P. Voorheis 555

PAGE

A novel method for the synthesis of nucleoside triphosphates labelled with inorganic [^{32}P]-phosphate specifically in the β-position.
By K. A. Abraham 615

Enzymic assays for isomers of 2,6-diaminopimelic acid in walls of *Bacillus cereus* and *Bacillus megaterium*.
By A. Day & P. J. White 677

Enzymology

Purification and properties of an α-D-galactoside galactohydrolase from the seeds of *Trifolium repens* (white clover).
By J. Williams, H. Villarroya & F. Petek 509

Calculation of steady-state rate equations and the fluxes between substrates and products in enzyme reactions.
By H. G. Britton 517

A latent form of collagenase in the involuting rat uterus and its activation by a serine proteinase.
By J. F. Woessner, Jr. 535

Studies on the purification of rat liver uridine diphosphate glucuronyltransferase.
By B. Burchell 543

Cinnabarinate synthase from baboon (*Papio ursinus*) liver. Identity with catalase.
By N. Savage & W. Prinz 551

An examination of potential matrices for the affinity chromatography of NADP$^+$-linked dehydrogenases with special reference to 6-phosphogluconate dehydrogenase.
By P. Griffiths, A. Houlton, M. J. Adams, M. J. Harvey & P. D. G. Dean 561

Studies on the mechanism and kinetics of the 2-oxoglutarate dehydrogenase system from pig heart.
By C. L. McMinn & J. H. Ottaway 569

Differences in catalytic properties between cerebral cytoplasmic and mitochondrial hexokinases.
By M. F. Thompson & H. S. Bachelard 593

The subunit structure of the *arom* multienzyme complex of *Neurospora crassa*. Possible pentafunctional polypeptide chain.
By J. Lumsden & J. R. Coggins 599

PAGE

Characteristics of hepatic serine–pyruvate aminotransferase in different mammalian species.
By T. Noguchi, Y. Takada & R. Kido 609

Evaluation of benzofuroxan as a chromophoric oxidizing agent for thiol groups by using its reactions with papain, ficin, bromelain and low-molecular-weight thiols.
By M. Shipton, T. Stuchbury, K. Brocklehurst, J. A. L. Herbert & H. Suschitzky 627

Cholera toxin requires oxidized nicotinamide–adenine dinucleotide to activate adenylate cyclase in purified rat liver plasma membranes.
By B. R. Martin, M. D. Houslay & E. L. Kennedy 639

Modification of pig heart lactate dehydrogenase with methyl methanethiosulphonate to produce an enzyme with altered catalytic activity.
By D. P. Bloxham & D. C. Wilton 643

PAGE

Factors affecting the binding of [^{3}H]adenosine 3′:5′-cyclic monophosphate to protein kinase from bovine adrenal cortex.
By S. O. Døskeland, P. M. Ueland & H. J. Haga 653

Studies on the soluble and membrane-bound amino acid 2-naphthylamidases in pig and human epidermis.
By G. M. Gray, A. Tabiowo & M. D. Trotter 667

General Methods

Macromolecular distribution near the limits of density-gradient columns. Some applications to the separation and fractionation of glycoproteins.
By J. M. Creeth & J. R. Horton 449

RAPID PAPER

PAGE

Enzymology

A consideration of the effects of added solutes on the activity of bovine superoxide dismutase.
By M. E. McAdam 697

INDEXES

PAGE

Author Index 701

Subject Index 705